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**REMARKS**

2 These remarks follow the order of the paragraphs of the office action. Relevant portions of the  
3 office action are shown indented and italicized.

4 Claims are amended herewith to better indicate that the invention is in regard to a 'data  
5 repository'.

6 **DETAILED ACTION**

7 ***Claim Rejections- 35 USC § 112***

8 *The following is a quotation of the second paragraph of 35 U.S.C. 112:  
9 The specification shall conclude with one or more claims particularly pointing out and  
10 distinctly claiming the subject matter which the applicant regards as his invention.*

11 *Claim 8 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing  
12 to particularly point out and distinctly claim the subject matter which applicant regards  
13 as the invention. The claim does not clearly set forth the metes and bounds of the  
14 limitation: "having a limitation taken from a group of limitations consisting of" Examiner  
15 interprets claim with respect to only one limitation taken from a group of limitations.*

16 In response, the applicants respectfully state that claim 8 is amended to overcome the rejection  
17 under 35 U.S.C. 112, second paragraph, as being indefinite. The claim is amended to read,  
18 "having a at least one limitation taken from a group of limitations. Thus claim 8 is allowable.

19 *Claim 14 is rejected under 36 U.S.C. 112, second paragraph as being indefinite for  
20 failing to particularly point out and distinctly claim the subject matter, which applicant  
21 regards as the invention.*

22 *In response, the applicants respectfully state that claim 14 reads*

23 14. A computer program product comprising a computer usable medium having  
24 computer readable program code means embodied therein for causing diagnosis from a  
25 repository of at least one fault in a system, the computer readable program code means in  
26 said computer program product comprising computer readable program code means for  
27 causing a computer to effect the functions of claim 13.

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1 The office communication fails to spell out the problem with the claim and as why it is  
2 indefinite. It is a Beauregard type claim to protect the invention for a computer product enabling  
3 one to implement the functions of the apparatus of claim 13. This claim format has been used for  
4 years in many applications which have been issued by the USPTO. If the Examiner requires this  
5 claim may be amended to be an independent claim listing the functions of claim 13.

6 ***Claim Rejections - 35 U.S.C. § 103***

7 *The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all*  
8 *obviousness rejections set forth in this Office action:*

9 *(a) A patent may not be obtained though the invention is not identically disclosed or*  
10 *described as set forth in section 102 of this title, if the differences between the subject*  
11 *matter sought to be patented and the prior art are such that the Subject matter as a whole*  
12 *would have been obvious at the time the invention was made to a person having ordinary*  
13 *skill in the art to which said subject matter pertains. Patentability shall not be negatived*  
14 *by the manner in which the invention was made.*

15 *The factual inquiries set forth in Graham v. John Deere Co., 383 US 1, 148 USPQ 459*  
16 *(1966), that are applied for establishing a background for determining obviousness under*  
17 *35 USC. 103(a) are summarized as follows:*

- 18 1. Determining the scope and contents of the prior art.
- 19 2. Ascertaining the differences between the prior art and the claims at issue.
- 20 3. Resolving the level of ordinary skill in the pertinent art.
- 21 4. Considering objective evidence present in the application indicating obviousness or
- 22 non-obviousness.

23 *Claims 1-8,11-19, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable*  
24 *over Pillutla (2003/0177414) taken in view of Bereiter (6,357,017).*

25 In response, the applicant respectfully states that Claims 1-8,11-19, 21 and 22 are apparently not  
26 made obvious by the combination of the cited art to Pillutla and Bereiter.

27 Applicants respectfully state that exception is taken with the alleged equivalence of elements in  
28 Claims 1-8,11-19, 21 and 22, and the inventions of Pillutla and Bereiter. The office  
29 communication is reading into the cited art elements of the present claims where these do not  
30 exist. There is apparently use of common words and phrases in Pillutla and Bereiter and the  
31 presently claimed invention in Claims 1-8,11-19, 21 and 22. However the words and phrases are  
32 used in different combinations and different context in each. The present invention, claimed in  
33 Claims 1-8,11-19, 21 and 22, protects the present invention wherein:

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1 "Faults and errors are diagnosed from a repository of directed graphs. Subsets of all the  
2 possible questions and answers in the fault diagnosis process are encoded as directed  
3 graphs. Downloading subsets from a repository to a remote user substantially reduces the  
4 number of transmissions between the user and the repository."

5 The cited art to Pillutla, US Patent Application 2003/0177414, filed: December 23, 2002, is  
6 entitled: "Model for performance tuning applications". The Pillutla abstract reads:

7 "In order to diagnose applications, a specialized knowledge base may be created that is  
8 static upon creation but may become dynamic when traversed. The knowledge base may  
9 be defined as a decision tree having one or more diagnosis nodes, one or more analysis  
10 nodes, and one or more symptom branches. The diagnosis nodes are leaf nodes and  
11 indicate proposed diagnoses and/or proposed remedies for an application. The symptom  
12 branches may connect analysis nodes to other analysis nodes or analysis nodes to  
13 diagnosis nodes, and may indicate possible symptoms of the application. The analysis  
14 nodes may be non-leaf nodes and indicate information required to determine which  
15 symptom branches to follow during traversal. Additionally, the analysis nodes may  
16 indicate additional information required from a collector agent before traversal can be  
17 continued. This allows the knowledge base to be utilized dynamically, improving  
18 performance and reliability."

19 Thus Pillutla is directed to 'diagnose applications, [wherein] a specialized knowledge base may  
20 be created that is static upon creation but may become dynamic when traversed.' Thus Pillutla is  
21 not concerned with faults and errors "diagnosed from a repository of directed graphs."

22 The other cited art to Bereiter, US Patent Application 6,357,017, filed: September 15, 2000, is  
23 entitled: "Method, system and computer program product for iterative distributed problem  
24 solving". The Bereiter abstract reads:

25 "A method, system and computer program product for automated technical support in a  
26 computer network having a client machine and at least one server. The method begins by  
27 selecting a diagnostic map useful in gathering diagnostic data for evaluating a given  
28 technical problem requiring diagnosis and correction. The diagnostic map encapsulates a

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1 set of one or more methods that, upon execution, explore the client machine and gather  
2 data. The diagnostic map is then executed by a diagnostic engine to generate a data set  
3 indicative of a current operating state of the client machine. This data set is forwarded  
4 from the client machine to the server for analysis. Based on the analysis performed at the  
5 server node, the data gathering process is repeated at the client machine, iteratively, until  
6 given information is available to a user of the client machine to correct the given  
7 technical problem".

8 Bereiter is concerned with "iterative distributed problem solving." Thus neither Pillutla or  
9 Bereiter are concerned with the elements and/or steps of claims 1-8,11-19, 21 and 22. Besides  
10 there is apparently no reason to make the combination of Pillutla and Bereiter except in an  
11 attempt by the office communication to allegedly find a combination of art which in combination  
12 performs the elements of Claims 1-8,11-19, 21 and 22. Pillutla the later filed application makes  
13 no reference to Bereiter. The office communication may not make a combination for  
14 obviousness which is not made or alluded to in a cited reference. Also, it will be shown that  
15 even the combination does not allude or make the present invention in Claims 1-8,11-19, 21 and  
16 22 obvious. Thus Claims 1-8,11-19, 21 and 22 are allowable over the cited art.

17 In order to more specifically claim the invention in Claims 1-8,11-19, 21 and 22, the word  
18 'repository' is amended to better indicate that the invention is in regard to a 'data repository'.

19 *As to claim 1, Pillutla discloses a method comprising diagnosing from a repository at  
20 least one fault in a system said repository represented as a directed graph having one or  
21 more undivided directed subgraphs, the step of diagnosing comprising the steps of:  
22 receiving a first description of said at least one fault (Page 2, ¶ 0033, lines 1-12);  
23 employing said first description to identify a response from the said repository (Page 5, ¶  
24 0057); and if the response is a diagnosis stopping otherwise identifying at least one  
25 subgraph responsive to said first description (Page 5, ¶ 0057).*

26 *Pillutla fails to disclose: using said at least one subgraph in determining said  
27 diagnosis, stopping if said diagnosis results, otherwise forming a modified description  
28 based upon said at least one subgraph; and replacing said first description with said  
29 modified description and repeating the steps of receiving employing, identifying and  
30 using until said diagnosis results.*

31 *Bereiter discloses a method for diagnosing and connecting a technical problem in a  
32 client computer system (abstract lines 1-6). Bereiter does disclose the diagnosing  
33 comprising the steps of: using said at least one subgraph in determining said diagnosis  
34 stopping if said diagnosis results, otherwise forming a modified description based upon*

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1        said at least one subgraph (column 7, lines 25-36); and replacing said first description  
2        with said modified description and repeating the steps of receiving, employing,  
3        identifying and using until said diagnosis results (column 7, lines 38-40).  
4

5        It would have been obvious to one of ordinary skill in this art at the time of invention  
6        by applicant to implement Bereiter's steps forming a modified description based upon the  
7        at least one subgraph and replacing the first description with the modified description  
8        and repeating the steps of receiving, employing, identifying and using until said diagnosis  
9        results with Pillutla's diagnosing steps. A person of ordinary skill in the art would have  
10      been motivated to make the modification because the new modified description is allows  
      for another chance to identify the problem (Bereiter: column 7, lines 38-40).

11      In response, the applicant respectfully states that exception is taken with the alleged equivalence  
12     of elements in Claim 1 and the art of Pillutla and the art of Bereiter . The office communication  
13     is reading into the cited art elements of the present claims where these do not exist. Claim 1  
14     reads:

15      1. A method comprising diagnosing from a data repository at least one fault in a system,  
16     said data repository represented as a directed graph having one or more undivided  
17     directed subgraphs, the step of diagnosing comprising the steps of:  
18        receiving a first description of said at least one fault;  
19        employing said first description to identify a response from the said data repository;  
20        if the response is a diagnosis stopping, otherwise identifying at least one subgraph  
21        responsive to said first description;  
22        using said at least one subgraph in determining said diagnosis, stopping if said  
23        diagnosis results, otherwise forming a modified description based upon said at least one  
24        subgraph; and  
25        replacing said first description with said modified description and repeating the steps  
26        of receiving, employing, identifying and using until said diagnosis results.

27      The office communication states

28      "As to claim 1, Pillutla discloses a method comprising diagnosing from a repository at  
29      least one fault in a system said repository represented as a directed graph having one or  
30      more undivided directed subgraphs."

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1 A review of Pillutla shows that indeed Pillutla fails to disclose "a method comprising diagnosing  
2 from a repository at least one fault in a system." A search on the Internet shows that on August  
3 11, 06, URL,

4 [http://www.google.com/search?hl=en&lr=&defl=en&q=define:repository&sa=X&oi=glossary\\_definition&ct=title](http://www.google.com/search?hl=en&lr=&defl=en&q=define:repository&sa=X&oi=glossary_definition&ct=title)  
5 gives as

6 Definitions of **repository** on the Web:

7 •**depository**: a facility where things can be deposited for storage or safekeeping

8 •a person to whom a secret is entrusted

9 •a burial vault (usually for some famous person)  
10 [wordnet.princeton.edu/perl/webwn](http://wordnet.princeton.edu/perl/webwn)

11 •A repository is a central place where data is stored and maintained. A repository can be a place where  
12 multiple databases or files are located for distribution over a network, or a repository can be a location that  
13 is directly accessible to the user without having to travel across a network.  
14 [en.wikipedia.org/wiki/Repository](http://en.wikipedia.org/wiki/Repository)

15 URL  
16 <http://www.greatnexus.com/glossary/define-repository.html>, on August 11, 06 show the

17 **Definitions Containing the Word - repository**

18 Database

19 A database is a collection of information organized in such a way that a computer  
20 program can quickly select desired pieces of data.

21 Relational databases are organized by fields, records, and tables. A field is a single piece  
22 of information; a record is one complete set of fields; and a table is a collection of  
23 records.

24 A CMS generally uses a relational database as its content repository. Storing content in  
25 fields rather than static pages makes that content appropriate for dynamic delivery.

26 Host

27 Any computer on a network that is a repository for services available to other computers  
28 on the network. It is quite common to have one host machine provide several services,  
29 such as SMTP (email) and HTTP (web).

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- 1 A data repository is more specifically defined August 11, 06, in URL:  
2 <http://www.google.com/search?hl=en&lr=&q=define%3A+%22data+repository%22&btnG=Search>  
3  
4 Definitions of "**data repository**" on the Web:

- 5 • A database acting as an information storage facility. Although often used synonymously with data  
6 warehouse, a repository does not have the analysis or querying functionality of a warehouse.  
7 [www.thebusinesssite.com/IT%20Terms/Health%20Terms.htm](http://www.thebusinesssite.com/IT%20Terms/Health%20Terms.htm)

8 Thus the definition of 'repository' and 'data repository' clearly show that these are not  
9 synonymous with the word database. A search of both Pillutla and Bereiter shows that neither is  
10 concerned with a 'repository' and are certainly not concerned with a 'data repository'.

11 The office communication further states

12 As to claim 1, Pillutla discloses .... ..."the step of diagnosing comprising the steps of:  
13 receiving a first description of said at least one fault (Page 2, ¶ 0033, lines 1-12)."

14 A review of the referenced portion of Pillutla shows that Pit fails to disclose a "step of  
15 diagnosing comprising the steps of: receiving a first description of said at least one fault" in  
16 (Page 2, ¶ 0033, lines 1-12), which reads:

17 [0033] According to one embodiment, analysis software 120 accesses memory 110,  
18 communicates and controls client system 104 through network 108 for data collection,  
19 user interaction, symptom identification, and presentation of probable remedies. Analysis  
20 software 120 comprises a set of software programs, which uses the information in  
21 memory 110 to gather environmental factors from user 102 about the System under Test  
22 (SUT) 128. Analysis software 120 also commands client components (Probe(s) 130 and  
23 Agent 132) on the SUT 128 to run prescribed performance analysis programs and  
24 receives a collection of performance statistics from the prescribed tests. Analysis software  
25 120 then analyzes the returned statistics for possible performance problems based on the  
26 codified rules in memory 110. The analysis software is essentially a software  
27 representation of the knowledgebase. Analysis software 120 optionally commands client  
28 components to run further tests in an attempt to narrow the scope of problem isolation

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1 and presents a set of probable diagnoses and their related remedy documentation from  
2 memory 110. This process may be reiterated until user 102 signifies satisfaction or  
3 dissatisfaction with the results or until a diagnosis from the memory 110 corresponds  
4 with the symptoms described by the collected data. Analysis software 120 further stores  
5 the user's satisfaction reply in memory 110 for further enhancement to the reasoning  
6 process, either through manual human intervention or automatically through an Analysis  
7 Wizard logic (not shown).

8

9 Pillutla paragraph [0033] is an entirely different method than the step of claim 1 for receiving a  
10 first description of said at least one fault. There is no indication in this paragraph whether there  
11 is any concern with a first description of a fault. Pillutla is not performing the steps of claim 1.  
12 Pillutla's actions and elements are totally different.

13 The office communication further states

14 *As to claim 1, Pillutla discloses .... ... the step of diagnosing comprising the steps of: ....*  
15 *... employing said first description to identify a response from the said repository (Page 5,*  
16 *¶ 0057);*

17 Pillutla (Page 5, ¶ 0057) reads:

18 [0057] FIG. 7 is a diagram illustrating a knowledge base in accordance with an  
19 embodiment of the present invention. In this embodiment, a decision tree is created for  
20 the knowledge base. Nodes of the decision tree are classified as analysis nodes or  
21 diagnosis nodes. A diagnosis node 700 is a leaf of the decision tree and indicates a  
22 proposed diagnosis for the problem and/or remedy of the problem. An analysis node 702  
23 has one or more branches 704a, 704b, 704c which are classified as symptoms. Therefore,  
24 at an analysis node, if one of the symptoms exists, the corresponding symptom branch is  
25 traversed.

26 Thus, Pillutla paragraph [0057] in no way alludes to claim 1's step of "employing said first .....  
27 description to identify a response from the said data repository." In this portion of Pillutla, there  
28 is no 'first description', no identification of a response, and no data repository.

29 The office communication further states

30 *As to claim 1, Pillutla discloses .... ... the step of diagnosing comprising the steps of: ....*  
31 *.... ... and if the response is a diagnosis stopping otherwise identifying at least one*  
32 *subgraph responsive to said first description (Page 5, ¶ 0057).*

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1 Pillutla paragraph [0057] in no way alludes to claim 1's step of "if the response is a diagnosis  
2 stopping, otherwise identifying at least one subgraph responsive to said first description." In this  
3 portion of Pillutla, there is no 'first description', no subgraph, and no subgraph responsive to a  
4 first description.

5 The office communication further states

6 *As to claim 1, .... ....* Pillutla fails to disclose: using said at least one subgraph in  
7 determining said diagnosis, stopping if said diagnosis results, otherwise forming a  
8 modified description based upon said at least one subgraph; and replacing said first  
9 description with said modified description and repeating the steps of receiving  
10 employing, identifying and using until said diagnosis results.

11 The applicants agree also that Pillutla does not allude to the other steps of claim 1. This is so  
12 even when combining Pillutla with Bereiter.

13 The office communication further states:

14 Bereiter discloses a method for diagnosing and connecting a technical problem in a  
15 client computer system (abstract lines 1-6). Bereiter does disclose the diagnosing  
16 comprising the steps of: using said at least one subgraph in determining said diagnosis  
17 stopping if said diagnosis results, otherwise forming a modified description based upon  
18 said at least one subgraph (column 7, lines 25-36); and replacing said first description  
19 with said modified description and repeating the steps of receiving, employing,  
20 identifying and using until said diagnosis results (column 7, lines 38-40).

21 The office communication appears to agree that the abstract of Bereiter shows that Bereiter is not  
22 related to the area of claim 1. A search of Bereiter shows that Bereiter is not concerned with a  
23 'repository' and is certainly not concerned with a 'data repository'. The office communication is  
24 apparently bringing in Bereiter because of its relation to some solution of a technical problem.

25 The office communication further states

26 Bereiter does disclose the diagnosing comprising the steps of: using said at least one  
27 subgraph in determining said diagnosis stopping if said diagnosis results, otherwise  
28 forming a modified description based upon said at least one subgraph (column 7, lines  
29 25-36);

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1 Bereiter is not concerned and doesn't mention a 'subgraph', and certainly doesn't allude to using a  
2 subgraph for stopping, or "a modified description", and certainly isn't concerned with "forming a  
3 modified description based upon said at least one subgraph," as in claim 1.

4 Bereiter (column 7, lines 38-40) reads:

5 At step 82, the SE performs an analysis of the data. The routine then continues at step 84  
6 by testing to determine whether the problem can be identified based on the information  
7 provided. If so, the routine branches back up to step 72 with the fix (or other information)  
8 then provided to the user. If, however, the result of the test at step 84 is negative, the  
9 routine then continues by obtaining a new diagnostic map at step 86 and returning to step  
10 78. The new diagnostic map may be a newly-written map. It may be an existing map that  
11 has yet to be executed. Or, it may be a revised version of a map that has already been  
12 executed. The new diagnostic map may be a previously-executed map being run a second  
13 time.

14 This is a routine having little to do with a graph or a subgraph. Thus Bereiter doesn't do the step  
15 of using a subgraph for stopping or anything else.

16 The office communication further states:

17 Bereiter does disclose the diagnosing comprising the steps of: .... .... and replacing said  
18 first description with said modified description and repeating the steps of receiving,  
19 employing, identifying and using until said diagnosis results (column 7, lines 38-40).  
20 Bereiter nowhere alludes a first description or a modified description as in claim 1. Bereiter is  
21 concerned with a map which is not relevant to the elements of claim 1. Thus

22 The office communication further states:

23 It would have been obvious to one of ordinary skill in this art at the time of invention  
24 by applicant to implement Bereiter's steps forming a modified description based upon the  
25 at least one subgraph and replacing the first description with the modified description and  
26 repeating the steps of receiving, employing, identifying and using until said diagnosis  
27 results with Pillutla 's diagnosing steps. A person of ordinary skill in the art would have  
28 been motivated to make the modification because the new modified description is allows  
29 for another chance to identify the problem (Bereiter: column 7, lines 38-40).

30 Applicants ask for backup of how one of ordinary skill in this art at the time of invention would  
31 use or be motivated to use a invention not related to claim 1 to make claim 1 obvious. At best  
32 this is hindsight but even hindsight would not use Bereiter and Pillutla to make claim 1 obvious.  
33 Thus claim 1 and all claims that depend thereupon is allowable over the cited art.

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1       *As to claim 2, Bereiter discloses the method as recited in claim 1, wherein the first*  
2       *description is completely covered by the diagnosis, the method further comprising*  
3       *implementing a solution based on the diagnosis (column 7, lines 40-42).*

4       In response, the applicant respectfully states that exception is taken with the alleged equivalence  
5       of elements in Claim 1 and the art of Bereiter . The office communication is reading into the  
6       cited art elements of the present claims where these do not exist. Claim 2 reads:

7           2. (Original) A method as recited in claim 1, wherein the first description is completely  
8           covered by the diagnosis, the method further comprising implementing a solution based  
9           on the diagnosis.

10      Bereiter (column 7, lines 40-42) reads:

11       The fix may be performed by the user, or by the SE, by cooperation between the user and  
12       the SE, or by some third party. The particular techniques by which problem fixes are  
13       carried out are beyond the scope of the present invention.

14      This apparently has little if anything to do with claim 2, "wherein the first description is  
15       completely covered by the diagnosis, the method further comprising implementing a solution  
16       based on the diagnosis. Thus claim 2 is allowable over the cited art for itself and because it  
17       depends on claim 1.

18       *As to claim 3, Pillutla discloses the method as recited in claim 1, wherein the first*  
19       *description includes a set of symptoms describing said at least one fault (Page 2, 0033,*  
20       *lines 1-5).*

21      In response, the applicant respectfully states that exception is taken with the alleged equivalence  
22       of elements in Claim 3 and the art of Pillutla and the art of Bereiter . The office communication  
23       is reading into the cited art elements of the present claims where these do not exist. Claim 3  
24       reads:

25           3. A method as recited in claim 1, wherein the first description includes a set of  
26           symptoms describing said at least one fault.

27      It was shown that Pillutla does not disclose claim 1, and the word fault doesn't occur in

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1 Pillutla. There is no indication that Pillutla is concerned with at least one fault in the sense of  
2 claim 3. Thus claim 3 is allowable over the cited art for itself and because it depends on claim 1.

3 *As to claim 4, Bereiter discloses the method as recited in claim 3, wherein the modified*  
4 *description includes an additional set of symptoms identified for probing by the subgraph*  
5 *(column 9, lines 18-25).*

6 In response, the applicant respectfully states that exception is taken with the alleged equivalence  
7 of elements in Claim 4 and the art of Pillutla and the art of Bereiter . The office communication  
8 is reading into the cited art elements of the present claims where these do not exist. Claim 4  
9 reads:

10 4. A method as recited in claim 3, wherein the modified description includes an  
11 additional set of symptoms identified for probing by the subgraph.

12 Bereiter (column 9, lines 18-25) is a portion of Bereiter claim 1 which doesn't talk about probing.  
13 It was shown that Pillutla and Bereiter do not disclose claim 1, and the word 'subgraph' doesn't  
14 occur in  
15 Pillutla or Bereiter. There is no indication that Bereiter is concerned with at least one fault in the  
16 sense of claim 4. Thus claim 4 is allowable over the cited art for itself and because it depends on  
17 claim 1.

18 *As to claim 5, Pillutla discloses a method as recited in claim 1, wherein the first*  
19 *subgraph is identified by a method employing an index mapping descriptions to initial*  
20 *subgraphs the trivial index simply mapping all descriptions to one subgraph (Figure 1B,*  
21 *Page 2 ¶ 0023, lines 4-8).*

22 In response, the applicant respectfully states that exception is taken with the alleged equivalence  
23 of elements in Claim 5 and the art of Pillutla and the art of Bereiter . The office communication  
24 is reading into the cited art elements of the present claims where these do not exist. Claim 5  
25 reads:

26 1. 5. (Original) A method as recited in claim 1, wherein the first subgraph is identified  
27 by a method employing an index mapping descriptions to initial subgraphs, the trivial  
28 index simply mapping all descriptions to one subgraph.

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1 It was shown that Pillutla and Bereiter do not disclose claim 1, and the word 'subgraph' doesn't  
2 occur in  
3 Pillutla or Bereiter. There is no indication that Pillutla is concerned with 'mapping descriptions  
4 to initial subgraphs', 'an index mapping descriptions to initial subgraphs, or a trivial index and  
5 certainly not to "an index mapping descriptions to initial subgraphs the trivial index simply  
6 mapping all descriptions to one subgraph in Pillutla (Figure 1B, Page 2 ¶ 0023, lines 4-8) in the  
7 sense of claim 5. Thus claim 5 is allowable over the cited art for itself and because it depends on  
8 claim 1.

9       *As to claim 6, Pillutla discloses the method as recited in claim 1, wherein said repository  
10      is remote and said undivided subgraphs are downloaded from said repository to a local  
11      agent performing the diagnosis as needed (Page 4, ¶[0045], lines 1-6).*

12 In response, the applicant respectfully states that exception is taken with the alleged equivalence  
13 of elements in Claim 6 and the art of Pillutla and the art of Bereiter . The office communication  
14 is reading into the cited art elements of the present claims where these do not exist. Claim 6  
15 reads:

16       6. A method as recited in claim 1, wherein said data repository is a remote data  
17      repository and said undivided subgraphs are downloaded from said data repository to a  
18      local agent performing the diagnosis as needed.

19 It was shown that Pillutla and Bereiter do not disclose claim 1, and the word 'subgraph' doesn't  
20 occur in  
21 Pillutla or Bereiter. There is no indication that Pillutla is concerned with a repository, a remote  
22 data repository, undivided subgraphs, a local agent performing the diagnosis as needed, and  
23 certainly not to when "a remote data repository and said undivided subgraphs are downloaded  
24 from said data repository to a local agent performing the diagnosis as needed," in [0045], lines  
25 1-6, in the sense of claim 6. Thus claim 6 is allowable over the cited art for itself and because it  
26 depends on claim 1.

27       *As to claim 7, Pillutla discloses the method as recited in claim 1, wherein said system is a  
28      system taken from a group of systems consisting of: a machine; a software program; a  
29      process; and any combination of these (Page 2, ¶0022, lines 1-5).*

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1 In response, the applicant respectfully states that exception is taken with the alleged equivalence  
2 of elements in Claim 7 and the art of Pillutla and the art of Bereiter . The office communication  
3 is reading into the cited art elements of the present claims where these do not exist. Claim 7  
4 reads:

5 7. (Original) A method as recited in claim 1, wherein said system is a system taken from  
6 a group of systems consisting of: a machine; a software program; a process; and any  
7 combination of these.

8 It was shown that Pillutla and Bereiter do not disclose claim 1. There is no indication that  
9 Pillutla is concerned with a repository, a data repository, a machine; a software program; a  
10 process," in [0022], lines 1-5, in the sense of claim 7. Thus claim 7 is allowable over the cited  
11 art for itself and because it depends on claim 1.

12 *As to claim 8, Pillutla discloses the method as recited in claim 1, having a limitation*  
13 *taken from a group of limitations consisting of: wherein each said undivided subgraph is*  
14 *implemented as executable code (column 9, lines 18-25); wherein said executable code is*  
15 *written in an object-oriented programming language (column 9, lines 18-25); wherein*  
16 *said executable code is written in a programming language that supports late binding*  
17 *(column 9, lines 18-25); wherein said programming language supports late binding and*  
18 *on-demand downloading of classes (column 9, lines 18-25); wherein said programming*  
19 *language that is object-oriented and supports late binding and on-demand downloading*  
20 *of classes is Java (column 9, lines 18-25); wherein said local agent is a machine; wherein*  
21 *said remote repository is downloaded as needed onto a small computing device; wherein*  
22 *said remote repository is hosted by a service provider supporting a plurality of customers*  
23 *and having each customer download subgraphs as needed to perform diagnosis; wherein*  
24 *at least one of said customers is a customer support center diagnosing faulty systems on*  
25 *behalf of a plurality of its own customers; wherein said customer is a field representative*  
26 *performing diagnosis of a failing system; wherein said customer is a faulty system*  
27 *operating in a self-diagnostic mode; and wherein said faulty system applies the solution*  
28 *identified by the fault diagnosis system in an autonomic, self-healing mode; and any*  
29 *combination of these limitations.*

30 In response, the applicant respectfully states that exception is taken with the alleged equivalence  
31 of elements in Claim 8 and the art of Pillutla and the art of Bereiter. As shown above, the office  
32 communication is reading into the cited art elements of the present claims where these do not  
33 exist. Claim 8 provides limitations not alluded to or made obvious by the cited art. Thus claim 8  
34 is allowable over the cited art for itself and because it depends on claim 1.

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1 As to claim 11, Pillutla (2003/0177414) taken in view of Bereiter (6,357,071) disclose an  
2 article of manufacture comprising a computer usable medium having computer readable  
3 program code means embodied therein for causing diagnosis from a repository of at  
4 least one fault in a system, the computer readable program code means in said article of  
5 manufacture comprising computer readable program code means for causing a computer  
6 to effect the steps of claim 1 (see claim 1 rejection).

7 In response, the applicant respectfully states that exception is taken with the alleged equivalence  
8 of elements in Claim 11 and the art of Pillutla and the art of Bereiter . The office communication  
9 is reading into the cited art elements of the present claims where these do not exist. Claim 11 is a  
10 Beauregard type claim protecting the invention from an article enabling performance of the steps  
11 of claim 1. Neither Pillutla or Bereiter allude to this. It was shown that claim 1 is not made  
12 obvious by the cited art. Thus claim 11 is allowable over the cited art for itself and because it  
13 depends on claim 1.

14 As to claim 11, Pillutla (2003/0177414) taken in view of Bereiter (6,357,071) disclose a  
15 program storage device readable by machine tangibly embodying a program of  
16 instructions executable by the machine to perform method steps for diagnosing from a  
17 repository at least one fault in a system, said method steps comprising the steps of claim  
18 1 (see claim 1 rejection).

19 In response, it is assumed that this is referring to claim 12 not 11. Applicant respectfully states  
20 that exception is taken with the alleged equivalence of elements in Claim 12 and the art of  
21 Pillutla and the art of Bereiter . The office communication is reading into the cited art elements  
22 of the present claims where these do not exist. Claim 12 is a Beauregard type claim protecting the  
23 invention from a device enabling performance of the steps of claim 1. Neither Pillutla or Bereiter  
24 allude to this. It was shown that claim 1 is not made obvious by the cited art. Thus claim 12 is  
25 allowable over the cited art for itself and because it depends on claim 1.

26 As to claim 13, Pillutla discloses an apparatus comprising means for diagnosing from a  
27 repository at least one fault in a system, said repository represented as a directed graph  
28 having one or more undivided directed subgraphs, the step of diagnosing comprising the  
29 steps of: means for receiving a first description of said at least one fault (Page 2, ¶10033,  
30 lines 1-12); means for employing said first description to identify a response from the  
31 said repository (Page 5, ¶ 0057); and means for if the response is a diagnosis stopping,  
32 otherwise identifying at least one subgraph responsive to said first description (Page 5, ¶  
33 0057).

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1       *Pillutla fails to disclose: means for using said at least one subgraph in determining  
2        said diagnosis, stopping if said diagnosis results, otherwise forming a modified  
3        description based upon said at least one subgraph; and means for replacing said first  
4        description with said modified description and repeating the steps of receiving  
5        employing, identifying and using until said diagnosis results.*

6       *Bereiter discloses a method for diagnosing and correcting a technical problem in a  
7        client computer system (abstract, lines 1-6). Bereiter does disclose the diagnosing  
8        comprising the steps of: means for using said at least one subgraph in determining said  
9        diagnosis, stopping if said diagnosis results, otherwise forming a modified description  
10       based upon said at least one subgraph (column 7, lines 25-36); and means for replacing  
11       said first description with said modified description and repeating the steps of receiving!  
12       employing, identifying and using until said diagnosis results (column 7, lines 38-40).*

13       *It would have been obvious to one of ordinary skill in this art at the time of invention  
14       by applicant to implement Bereiter's steps forming a modified description based upon the  
15       at least one subgraph and replacing the first description with the modified description  
16       and repeating the steps of receiving, employing, identifying and using until said diagnosis  
17       results with Pillutla's diagnosing steps. A person of ordinary skill in the art would have  
18       been motivated to make the modification because the new modified description is allows  
19       for another chance to identify the problem (Bereiter: column 7, lines 38-40).*

20       In response, the applicant respectfully states that exception is taken with the alleged equivalence  
21       of elements in Claim 13 and the art of Pillutla and the art of Bereiter . The office communication  
22       is reading into the cited art elements of the present claims where these do not exist. Claim 13  
23       reads:

24       13. An apparatus comprising means for diagnosing from a data repository at least one  
25       fault in a system, said data repository represented as a directed graph having of one or  
26       more undivided directed subgraphs, the means for diagnosing comprising:

27           means for receiving a first description of said at least one fault;

28           means for employing said first description to identify a response from the said data  
29       repository;

30           means for if the response is a diagnosis stopping, otherwise identifying at least one  
31       subgraph responsive to said first description;

32           means for using said at least one subgraph in determining said diagnosis, stopping if  
33       said diagnosis results, otherwise forming a modified description based upon said at least  
34       one subgraph; and

35           means for replacing said first description with said modified description and repeating  
36       the steps of receiving, employing, identifying and using until said diagnosis results.

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1 It was shown that neither Pillutla or Bereiter separately or in combination make claim 1 obvious.  
2 Claim 13 is an apparatus having functional elements to carry out steps of the method claim. As  
3 with claim 1, the elements of claim 13 are not alluded to in, and are not made obvious by, the  
4 cited art. Thus claim 13 and all claims that depend thereon are allowable over the cited art.

5 *As to claim 14, Pillutla (2003/0177414) taken in view of Bereiter (6,357,071) disclose a*  
6 *computer program product comprising a computer usable medium having computer*  
7 *readable program code means embodied therein for causing diagnosis from a repository*  
8 *of at least one fault in a system, the computer readable program code means in said*  
9 *computer program product comprising computer readable program code means for*  
10 *causing a computer to effect the functions of claim 13 (see claim rejection 13).*

11 In response, the applicant respectfully states that exception is taken with the alleged equivalence  
12 of elements in Claim 14 and the art of Pillutla and the art of Bereiter . The office communication  
13 is reading into the cited art elements of the present claims where these do not exist. Claim 14 is a  
14 Beauregard type claim protecting the invention from a product enabling performance of the  
15 functions of claim 13. Neither Pillutla or Bereiter allude to this. It was shown that claims 1 and  
16 13 are not made obvious by the cited art. Thus claim 14 is allowable over the cited art for itself  
17 and because it depends on claim 13.

18 *As to claim 15, Bereiter discloses a method for diagnosing a fault, said method*  
19 *comprising: commencing a diagnosis session; initializing a current state the current state*  
20 *being symptoms comprising an initial description of a fault being diagnosed (column 7,*  
21 *lines 19-23); identifying one graph from a repository of graphs which when taken*  
22 *together, encode symptoms and diagnoses of a system, and assigning said one graph to*  
23 *be the current graph (column 7, lines 8-16); and retrieving said current graph from the*  
24 *repository (column 7, lines 10-13); Bereiter fails to disclose: assigning one node of the*  
25 *current graph to be the current node; identifying the node type of the current node; and if*  
26 *the current node is of type diagnosis, then returning the diagnosis associated with the*  
27 *node as the diagnosis of the fault; if the node type is not of type diagnosis then*  
28 *performing a particular node type operation, and repeating the step of identifying the*  
29 *node type of the current node, until the node type of the current node is of type diagnosis.*  
30 *Pillutla discloses a method of diagnosing faults in a computer system by traversing nodes*  
31 *in a decision tree (abstract, lines 1-6). Pillutla does disclose: assigning one node of the*  
32 *current graph to be the current node (Page 5, ¶ 0060, lines 4-12); identifying the node*  
33 *type of the current node (Page 5, ¶ 0057); and if the current node is of type diagnosis,*  
34 *then returning the diagnosis associated with the node as the diagnosis of the fault (Page*  
35 *5, ¶ 0057); if the node type is not of type diagnosis then performing a particular node*

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1       type operation, and repeating the step of identifying the node type of the current node,  
2       until the node type of the current node is of type diagnosis (Page 5, ¶ 0057).

3       It would have been obvious to one of ordinary skill in this art at the time of invention  
4       by applicant to implement Bereiter's method of diagnosing faults with Pillutla's method  
5       of assigning and identification of nodes for a current diagnostic graph. A person of  
6       ordinary skill in the art would have been motivated to make the modification because the  
7       analysis nodes provide information required to determine which symptom branches to  
8       follow during traversal and diagnosis nodes provide diagnoses and or proposed remedies  
9       for an application (Pillutla: page 1, ¶ 0006 lines 6-13).

10      In response, the applicant respectfully states that exception is taken with the alleged equivalence  
11     of elements in Claim 15 and the art of Pillutla and the art of Bereiter . The office communication  
12     is reading into the cited art elements of the present claims where these do not exist. Claim 15  
13     reads:

14           15. A method for diagnosing a fault, said method comprising:

15     commencing a diagnosis session;

16     initializing a current state, the current state being symptoms comprising an initial description of a  
17     fault being diagnosed;

18     identifying one graph from a data repository of graphs which, when taken together, encode  
19     symptoms and diagnoses of a system, and assigning said one graph to be the current graph;

20     retrieving said current graph from the data repository;

21     assigning one node of the current graph to be the current node;

22     identifying the node type of the current node; and

23           if the current node is of type diagnosis, then returning the diagnosis associated with the  
24           node as the diagnosis of the fault;

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1 if the node type is not of type diagnosis then performing a particular node type operation,  
2 and repeating the step of identifying the node type of the current node, until the node type  
3 of the current node is of type diagnosis.

4 A review of Pillutla shows that indeed Pillutla fails to disclose a method for diagnosing a fault  
5 from a repository. Pillutla is not concerned with a data repository, a data repository of graphs  
6 taken together. Pillutla is not concerned with encode symptoms and diagnoses of a system, and  
7 is not concerned with "assigning said one graph to be the current graph", and is certainly not  
8 concerned with "identifying one graph from a data repository of graphs which, when taken  
9 together, encode symptoms and diagnoses of a system, and assigning said one graph to be the  
10 current graph, as in claim 15. Pillutla doesn't do the steps of retrieving, assigning or identifying a  
11 node type as in claim 15. Pillutla and Bereiter having different goals than claim 15 are  
12 performing different functions than the elements of claim 15. Some same words and phrases  
13 may be used in common with claim 15 but in other functional ways. Thus claim 15 is allowable  
14 over the cited art.

15 As to claim 16, Pillutla discloses a method as recited in claim 15, wherein the step of  
16 identifying one root graph comprises employing indexing graphs by symptoms (Page 2. ¶  
17 0023).

18 In response, the applicant respectfully states that exception is taken with the alleged equivalence  
19 of elements in Claim 16 and the art of Pillutla and the art of Bereiter . The office communication  
20 is reading into the cited art elements of the present claims where these do not exist. Claim 16  
21 reads:

22 16. (Original) A method as recited in claim 15, wherein the step of identifying one root  
23 graph comprises employing indexing graphs by symptoms.

24 The cited portion of Pillutla [0023] reads:

25 [0023] In accordance with one embodiment of the present invention, server system 106  
26 comprises a memory 110 and analysis software 120, also referred to as an "analyzer".  
27 Memory 110 stores a library of symptom descriptions 112, a corresponding library of  
28 diagnoses 114, a corresponding library of remedies 116, and a corresponding library of  
29 probes 118. The analysis software 120 comprises an identifier 122, a comparator 124, and  
30 a reiterator 126.

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1 This does not allude to or make obvious a "step of identifying one root graph comprises  
2 employing indexing graphs by symptoms," as in claim 16. Thus claim 16 is allowable over the  
3 cited art for itself and because it depends on claim 15.

4 *As to claim 17, Pillulla and Bereiter disclose a method as recited in claim 15, wherein:*  
5 *the repository of directed graphs is a remote repository remote from a process running*  
6 *the fault diagnosis session, said remote repository comprising a complete set of directed*  
7 *graphs which taken together encode the symptoms and diagnoses of the fault diagnosis*  
8 *system (Pillulla: Page 1, ¶ 0019, lines 1-4 & Page 2, ¶ 0023); the step of identifying one*  
9 *graph incorporates logic to remotely ask the repository to identify one graph at a known*  
10 *or discoverable location (Bereiter: column 7, lines 8- 10); and the step of retrieving*  
11 *incorporates logic to retrieve remotely from said known or discoverable location*  
12 *(Bereiter: column 7, lines 10-13, This is inherent due to the fact that a computer and*  
13 *server are transmitting and receiving the data).*

14 In response, the applicant respectfully states that exception is taken with the alleged equivalence  
15 of elements in Claim 17 and the art of Pillutla and the art of Bereiter . The office communication  
16 is reading into the cited art elements of the present claims where these do not exist. Claim 17  
17 reads:

18 17. A method as recited in claim 15, wherein:

19 the data repository of directed graphs is a remote data repository, remote from a process  
20 running the fault diagnosis session, said remote data repository comprising a complete set  
21 of directed graphs which taken together encode the symptoms and diagnoses of the fault  
22 diagnosis system;

23 the step of identifying one graph incorporates logic to remotely ask the data repository to  
24 identify one graph at a known or discoverable location; and

25 the step of retrieving incorporates logic to retrieve remotely from said known or  
26 discoverable location.

27 It was shown that Pillutla and Bereiter do not disclose claim 15, and the word 'subgraph' doesn't  
28 occur in

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1 Pillutla or Bereiter. There is no indication that Pillutla is concerned with a repository, a remote  
2 data repository, undivided subgraphs, directed graphs, and certainly not a "step of retrieving  
3 incorporates logic to retrieve remotely from said known or discoverable location," in the sense of  
4 claim 17. Thus claim 17 is allowable over the cited art for itself and because it depends on claim  
5 15.

6 *As to claim 18, Pillutla (2003/0177414) taken in view of Bereiter (6.357,071) disclose  
7 article of manufacture comprising a computer usable medium having computer readable  
8 program code means embodied Therein for causing diagnosis of a fault the computer  
9 readable program code means in said article of manufacture comprising computer  
10 readable program code means for causing a computer to effect the steps of claim 15 (see  
11 claim rejection 15).*

12 In response, the applicant respectfully states that exception is taken with the alleged equivalence  
13 of elements in Claim 18 and the art of Pillutla and the art of Bereiter . The office communication  
14 is reading into the cited art elements of the present claims where these do not exist. Claim 18 is a  
15 Beauregard type claim protecting the invention from an article enabling performance of the steps  
16 of claim 15. Neither Pillutla or Bereiter allude to this. It was shown that claim 15 is not made  
17 obvious by the cited art. Thus claim 18 is allowable over the cited art for itself and because it  
18 depends on claim 1.

19 *As to claim 19, Pillutla (200310177414) taken in view of Bereiter (6,357,071) disclose a  
20 program storage device readable by machine, tangibly embodying a program of  
21 instructions executable by the machine to perform method steps for diagnosing a fault,  
22 said method steps comprising the steps of claim 15 (see claim rejection 15).*

23 In response, the applicant respectfully states that exception is taken with the alleged equivalence  
24 of elements in Claim 19 and the art of Pillutla and the art of Bereiter . The office communication  
25 is reading into the cited art elements of the present claims where these do not exist. Applicant  
26 respectfully states that exception is taken with the alleged equivalence of elements in Claim 19  
27 and the art of Pillutla and the art of Bereiter . The office communication is reading into the cited  
28 art elements of the present claims where these do not exist. Claim 19 is a Beauregard type claim  
29 protecting the invention from a device enabling performance of the steps of claim 15. Neither

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1 Pillutla or Bereiter allude to this. It was shown that claim 15 is not made obvious by the cited  
2 art. Thus claim 19 is allowable over the cited art for itself and because it depends on claim 15.

3 As to claim 21. Pillutla and Bereiter disclose a method as recited in claim 15, wherein: if  
4 the current node is of type call-graph, then the step of performing a particular node type  
5 operation includes setting the current graph to be a graph associated with the call-graph  
6 node, and repeating the steps of retrieving and assigning (Bereiter: column 7, lines  
7 60-63); if the current node is of type functional-branch then the step of performing a  
8 particular node type operation includes evaluating a function associated with the  
9 functional-branch node over the current state of the diagnosis session, and assigning the  
10 value of the function to be the current node (Pillutla: Page 5, ¶ 0057, lines 7-9); if the  
11 current node is of type question, then the step of performing a particular node type  
12 operation includes asking a question associated with the current node, collecting an  
13 answer to the question, updating the current state with a pair having a form <question,  
14 answer>, traversing an edge labeled by the answer or by a function that accepts the  
15 value as being valid, reaching a new node in the current graph, and assigning the new  
16 node to be the current node (Pillutla: Page 5, ¶ 0057, lines 7-9); if the current node type  
17 is of type test, then the step of performing a particular node type operation includes  
18 performing a test on the faulty system, adding additional symptoms to the current state  
19 based on the test results, traversing the edge leaving the current node to reach a new  
20 node and assigning the new node to be the current node (Pillutla: Page 5, ¶ 0058 lines  
21 3-6); if the current node type is of type lookup, then the step of performing a particular  
22 node type operation includes querying a source external to the diagnosis system and the  
23 user, adding additional symptoms to the current state based on the query results,  
24 traversing the edge leaving the current node to reach a new node and assigning the new  
25 node to be the current node (Bereiter: columns, lines 25-31); and if the current node type  
26 is of type state-transformation, then the step of performing a particular node type  
27 operation includes applying a function associated with the state-transformation node to  
28 the current state to modify the current state, traversing the edge leaving the current node  
29 to reach a new node and assigning the new node to be the current node (Bereiter: column  
30 8, lines 15-18).

31 In response, the applicant respectfully states that exception is taken with the alleged equivalence  
32 of elements in Claim 21 and the art of Pillutla and the art of Bereiter . The office communication  
33 is reading into the cited art elements of the present claims where these do not exist. Claim 21  
34 reads:

35 21. A method as recited in claim 15, wherein:

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- 1 if the current node is of type call-graph, then the step of performing a particular node type  
2 operation includes setting the current graph to be a graph associated with the call-graph  
3 node, and repeating the steps of retrieving and assigning;
- 4 if the current node is of type functional-branch, then the step of performing a particular  
5 node type operation includes evaluating a function associated with the functional-branch  
6 node over the current state of the diagnosis session, and assigning the value of the  
7 function to be the current node;
- 8 if the current node is of type question, then the step of performing a particular node type  
9 operation includes asking a question associated with the current node, collecting an  
10 answer to the question, updating the current state with a pair having a form <question,  
11 answer>, traversing an edge labeled by the answer or by a function that accepts the value  
12 as being valid, reaching a new node in the current graph, and assigning the new node to  
13 be the current node;
- 14 if the current node type is of type test, then the step of performing a particular node type  
15 operation includes performing a test on the faulty system, adding additional symptoms to  
16 the current state based on the test results, traversing the edge leaving the current node to  
17 reach a new node and assigning the new node to be the current node;
- 18 if the current node type is of type lookup, then the step of performing a particular node  
19 type operation includes querying a source external to the diagnosis system and the user,  
20 adding additional symptoms to the current state based on the query results, traversing the  
21 edge leaving the current node to reach a new node and assigning the new node to be the  
22 current node; and
- 23 if the current node type is of type state-transformation, then the step of performing a  
24 particular node type operation includes applying a function associated with the  
25 state-transformation node to the current state to modify the current state, traversing the

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1 edge leaving the current node to reach a new node and assigning the new node to be the  
2 current node.

3 It was shown that indeed Pillutla and Bereiter do not make claim 15 obvious. Claim 21 is a  
4 detailed claim having many elements and limitations for claim 15 not remotely alluded to or  
5 made obvious by the Pillutla and Bereiter. Thus claim 21 is allowable over the cited art for itself  
6 and because it depends on claim 15.

7 *As to claim 22, Pillutla and Bereiter disclose a method as recited in claim 15, wherein: a*  
8 *node of type diagnosis is a node representing one definitive diagnosis of the fault and*  
9 *optionally supplying an action plan to remedy the fault (Pillutla: Page 5, ¶ 0057, lines*  
10 *5-7); a node of type call-graph is a node connecting one graph to another graph,*  
11 *allowing composition of graphs (Bereiter: column 7, lines 60-63); a node of type*  
12 *functional-branch is a node which allows a transfer of control to any other node in the*  
13 *current graph where the new node is the computed value of a function (associated with*  
14 *the functional-branch node) of the current state of the diagnosis session, where the*  
15 *current state is represented by the set of all <question, answer> pairs formed from*  
16 *questions already answered in the current session (Pillutla: Page 5, 0057, lines 7-9); and*  
17 *Application/Control Number; 10/723.751 Page 14 Art U nit; 2113 a node of*  
18 *state-transformation is a node which allows modification of the current state by applying*  
19 *a function associated with the state-transformation node to the current state to modify it*  
20 *(Bereiter: column 8, lines 15-18).*

21 In response, the applicant respectfully states that exception is taken with the alleged equivalence  
22 of elements in Claim 22 and the art of Pillutla and the art of Bereiter . The office communication  
23 is reading into the cited art elements of the present claims where these do not exist. Claim 22  
24 reads:

25 22. A method as recited in claim 15, wherein:

26 a node of type diagnosis is a node representing one definitive diagnosis of the fault  
27 and optionally supplying an action plan to remedy the fault;

28 a node of type call-graph is a node connecting one graph to another graph, allowing  
29 composition of graphs;

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1 a node of type functional-branch is a node which allows a transfer of control to any  
2 other node in the current graph where the new node is the computed value of a  
3 function (associated with the functional-branch node) of the current state of the  
4 diagnosis session, where the current state is represented by the set of all <question,  
5 answer> pairs formed from questions already answered in the current session; and

6 a node of state-transformation is a node which allows modification of the current state by  
7 applying a function associated with the state-transformation node to the current state to  
8 modify it.

9 It was shown that indeed Pillutla and Bereiter do not make claim 15 obvious. Claim 22 is a  
10 detailed claim having many elements and limitations for claim 15 not remotely alluded to or  
11 made obvious by the Pillutla and Bereiter. Thus claim 22 is allowable over the cited art for itself  
12 and because it depends on claim 15.

13 *Claim 9 is rejected under 35 USC. 103(a) as being unpatentable over the combination  
14 Pillutla and Bereiter as applied to claim 1 above, and further in view of Takayama  
15 (2003/0115510).*

16 *As to claim 9, Pillutla and Bereiter disclose a method of diagnosing a fault in a computer  
17 system from a repository see claim rejection 1). The combination fails to disclose wherein  
18 diagnosing is done proactively to prevent faults from occurring in the future and/or to  
19 train someone to use said system successfully so that faults will not occur.  
20 Takayama discloses a preventive maintenance contract for a machine (Page 3, ¶ 0037,  
21 lines 1-2). Takayama does disclose wherein diagnosing is done proactively to prevent  
22 faults from occurring in the future and/or to train someone to use said system  
23 successfully so that faults will not occur (Page 3, ¶ 0037, lines 2-11).*

24 *It would have been obvious to one of ordinary skill in this art at the time of invention  
25 by applicant to implement Bereiter's and Pillutla's method diagnosing faults with  
26 Takayama's proactive diagnosis of faults. A person of ordinary skill in the art would  
27 have been motivated to make the modification because by periodically conducting a fault  
28 diagnosis you can estimate the occurrence of the disorder (Takayama: Page 3, ¶ 0037,  
29 lines 6-9).*

30 In response, the applicant respectfully states that exception is taken with the alleged equivalence  
31 of elements in Claim 9 and the art of Pillutla and the art of Bereiter . The office communication

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1 is reading into the cited art elements of the present claims where these do not exist. Claim 1  
2 reads:

3 9. (Original) A method as recited in claim 1, wherein said diagnosing is done proactively  
4 to prevent faults from occurring in the future and/or to train someone to use said system  
5 successfully so that faults will not occur.

6 More art is cited to Takayama, US Patent Application 2003/0115510, filed: December 4, 2002, is  
7 entitled: "Preventive maintenance system of industrial machine". The abstract reads:

8 "A preventive maintenance system for an industrial machine includes an information  
9 transmission unit for connecting, whenever necessary, a LAN on the user side and a LAN  
10 on a manufacturer side through a communication line; a monitor unit connected to the  
11 LAN on the user side for monitoring predetermined items of the industrial machine; an  
12 information transmission/reception unit for transmitting the monitor information obtained  
13 by the monitor unit to the LAN on the manufacturer side through the information  
14 transmission unit, and for receiving information from the LAN on the manufacturer side;  
15 a supervisory unit connected to the LAN on the manufacturer side for automatically  
16 diagnosing a fault based on the monitor information received, and for automatically  
17 supervising the industrial machine; and a preventive maintenance information  
18 transmission unit for automatically transmitting preventive maintenance information to  
19 the user side when maintenance is necessary based on a diagnosis result".

20 In response, the applicants respectfully state that there is no indication to make the combination  
21 with Takayama. This is via hindsight not alluded to in any of the art. Besides even the  
22 combination does not make obvious a step of "diagnosing is done proactively to prevent faults  
23 from occurring in the future and/or to train someone to use said system successfully so that faults  
24 will not occur." Thus claim 9 is allowable over the cited art for itself and because it depends on  
25 claim 1.

26 *Claims 10 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over the  
27 combination Pillutla and Bereiter as applied to claims 1 and 20 (respectively) above, and  
28 further In view of Knightbridge (2004/0019900).*

29 *As to claim 10, Pillutla and Bereiter disclose a method of diagnosing a fault in a  
30 computer system from a repository (see claim rejection 15). The combination fails to  
31 disclose the service provider charging each customer for an amount of resources  
32 consumed during any diagnosis session.*

33 *Knightbridge discloses a remote repository providing service and support to clients  
34 (Abstract, lines 4-10). Knightbridge does disclose the service provider charging each*

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1       *customer for an amount of resources consumed during any diagnosis session (Page 4, ¶ 0048, lines 6-9).*

2  
3       *It would have been obvious to one of ordinary skill in this art at the time of invention by applicant to implement Bereiter's and Pillutla's method diagnosing faults with Knightbridge's billing method of charging each customer for an amount of resources consumed during any diagnosis session. A person of ordinary skill in the art would have been motivated to make the modification because the service provider can calculate bills for individual users that correspond to their exact usage history (Knightbridge; Page 4, ¶ 0048, lines 6-13).*

4  
5       *As to claim 20, Pillutla and Bereiter disclose a method of diagnosing a fault in a computer system from a repository (see claim rejection 15). The combination fails to disclose the service provider charging each customer for an amount of resources consumed during any diagnosis session. Knightbridge discloses a remote repository providing service and support to clients (Abstract, lines 4-10). Knightbridge does disclose the service provider charging each customer for an amount of resources consumed during any diagnosis session (Page 4, ¶1 0048, lines 6-9).*

6  
7       *It would have been obvious to one of ordinary skill In this art at the time of invention by applicant to implement Bereiter's and Pillutla's method diagnosing faults with Knightbridge's billing method of charging each customer for an amount of resources consumed during any diagnosis session. A person of ordinary skill in the art would have been motivated to make the modification because the service provider can calculate bills for individual users that correspond to their exact network resource usage Knightbridge: Page 4, ¶ 0048, lines 6-13).*

8  
9       In response, the applicant respectfully states that exception is taken with the alleged equivalence of elements in Claims 10 and 20 and the art of Pillutla Bereiter and the art of Knightbridge. The office communication is reading into the cited art elements of the present claims where these do not exist.

10      The cited art to Knightbridge, US Patent Application 2004/0019900, filed: July 23, 2002, is entitled: "Integration platform for interactive communications and management of video on demand services". The abstract reads:

11       "The present invention to is directed toward an integrated standard platform for the integration of content distributor's back office processes with multiple services from different vendors. A centralized management architecture supporting configuration and accounting management functions for multiple services is provided. The architecture comprises a database for storing configuration, user profile and usage data. The

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1       architecture also includes a service and a support gateway to regulate the provisioning,  
2       security, policies and operations regarding the content delivery. The centralized  
3       architecture has the ability to manipulate data stored in the database for facilitating  
4       delivery and control of service provided by the third party vendors. The architecture  
5       further includes a package manager module, which allows the content distributor to  
6       personalize the available content for an individual user. The campaign manager within  
7       the package manager enables the distributor to conduct promotional campaigns before,  
8       in-between or after the requested content delivery".

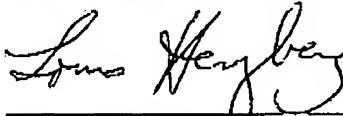
9       In response, the applicants respectfully state that claims 10 and 20 are not made obvious by the  
10      combination. Even if it would be, this is via hindsight not alluded to in any of the art. Besides  
11      even the combination does not make obvious a step of a data repository enabling "an on-demand  
12      fault diagnosis system with a service provider charging each customer for an amount of resources  
13      consumed during any diagnosis session." Thus claims 10 and 20 are allowable over the cited art  
14      each for itself and because it depends on an allowable claim.

15      It is anticipated that this amendment bring claims 1-22 to allowance. Please contact the  
16      undersigned if any question remains, before issuing a communication with a status of FINAL..

17      Please charge any fee necessary to enter this paper to deposit account 50-0510.

18

Respectfully submitted,



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